Research Ethics in the Scholarship of Teaching and Learning (SoTL): A Guide to Support SoTL Project Design

University of Ottawa
The Scholarship of Teaching and Learning at the University of Ottawa

The University of Ottawa is dedicated to the Scholarship of Teaching and Learning (SoTL) and the Advancement of the Scholarship of Teaching and Learning (ASoTL) research unit is committed to developing a culture of inquiry and fostering pedagogical innovation, systematic inquiry, and knowledge mobilization in higher education. The values endowed by the ASoTL research unit reflect the University of Ottawa’s *Transformation 2030* (University of Ottawa, n.d.) strategic plan to enrich student learning experiences, and pursue teaching and researching excellence. Accordingly, the ASoTL research unit strives to fulfil this objective through cross-disciplinary research that encourages teaching and learning initiatives intended for the transfer of knowledge in SoTL. Further information can be found at the [University of Ottawa’s Advancement of the Scholarship of Teaching and Learning research unit webpage](http://www.uottawa.ca). In order to achieve this mission, this guide seeks to aid current and future SoTL researchers in understanding and navigating the ethical considerations unique to SoTL, and align SoTL research with the Tri-Council Policy Statement (TCPS). SoTL researchers may ultimately use insights and resources highlighted in this guide to design and implement robust, effective, and ethically sound SoTL projects.

The Ethics Review Process at the University of Ottawa

The University of Ottawa has two Research Ethics Boards (REB): the Social Sciences and Humanities REB and the Health and Sciences and Science REB. These REBs are governed by the ethical conduct requirements as outlined by the *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans* (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, 2018)(TCPS2). The TCPS2 outlines the required ethical considerations for all research conducted at Canadian post-secondary institutions, including what does and does not require REB review (See TCPS 2 Chapter 2), and the different types of review ([Chapter 6, Section B](http://www.icrhc-icrhc.gc.ca)). The University of Ottawa’s Office of Research Ethics and Integrity (2019) mandates that, “Standard applications must be submitted for research projects involving direct contact with human participants.” When renewing approval, researchers must again seek
REB approval, however the review process is normally expedited. Further information regarding the ethics review timelines, general ethics guidelines, permissions and approvals, confidentiality and privacy, and data protection can be found in the Office of Research Ethics and Integrity’s Internal Guidelines and Procedures. The University of Ottawa recommendations listed in the following section are taken from the Internal Guidelines and Procedures.

The Scholarship of Teaching and Learning

SoTL offers valuable insights regarding student learning and educator efficacy in teaching strategies. Because of the nexus between student learning and teaching practice in higher education, the field is inherently multidisciplinary (Simmons & Marquis, 2017; Tight, 2018). Although SoTL is described differently since its conception (see Tight, 2018), Healey et al (2013) cogently define SoTL as “the process of exploring, researching, developing, refining, reflecting upon, and communicating better ways and means of producing, promoting, and enhancing scholarly learning and teaching in ways that are ethically reasoned and inclusive” (p. 24). The impact of SoTL on student experiences is shown to positively affect learner experiences in higher education. Indeed, Brew and Ginns (2008) found that faculty involvement in SoTL positively resulted in students’ recognition of effective teaching, assessment, and generic skills; reflecting enhanced student learning experiences. Furthermore, SoTL research demonstrates how higher education professionals may improve their practice through forms of collaborative planning and discussion (Wood & Cajkler, 2018). Because SoTL researchers come from various disciplines dependent on differing methodological backgrounds, understanding SoTL research ethics is all the more important.

The Scholarship of Teaching and Learning as Distinct from Program Evaluation

Although SoTL may appear similar to program evaluation, there is in fact a distinct difference. Unlike program evaluation, SoTL is intended to be transferable across similar disciplines in order to enhance student learning and teaching practices (Levin-Rozalis, 2003; Stockley & Balkwill, 2013). While educators should always reflect upon the relationship between pedagogy and student learning (for instance, reflective practice), SoTL publicizes and
distributes such insights about teaching practice, and teacher/student experiences (Charbonneau, 2005; Kanuka, 2011) to contribute to the larger body of knowledge regarding teaching and learning. Another distinction between program evaluation and SoTL is the role of theory. According to Cook and Lowe (2012), the objective of research is to “develop and/or test theory and theoretical propositions for the purpose of generalization” (p. 1). This aligns with the TCPS 2 definition of research as “as an undertaking intended to extend knowledge through a disciplined inquiry and/or systematic investigation.” Conversely, program evaluation is not founded on a theory and is typically unlikely to be generalizable, as the evaluation pertains to a specific program. While SoTL investigates or develops a theory related to teaching and learning, program evaluation “focuses mainly on making decisions and products about programs and practices” (Kanuka, 2011, p. 7). The objectives of program evaluation tend to be associated with and impact an institution’s goals rather than generating knowledge that is transferable to different institutions.

**Research Ethics and the Scholarship of Teaching and Learning**

The ethics review process is necessary to ensure both the protection of students as participants and sources of data, as well as teacher-researchers and their affiliated institutions. Although researchers might likely perceive their research as low-risk to their participants, the ethics review process is essential for highlighting any instances wherein unrecognized issues might emerge (Martin, 2013). For example, some central issues revolve around recruiting research participants without unintentionally coercing them to participate in a research project; or, recognizing the importance of maintaining participant anonymity and confidentiality. Additionally, SoTL researchers sometimes view the ethics process as confusing, time-consuming, burdensome, or not applicable (Stockley & Balkwill, 2013). Accordingly, this guide is intended to clarify questions and concerns in order to strengthen ethics applications and streamline the ethics review process. Furthermore, with the increased use of technology for research, Chang and Gray (2013) also highlight how the ethics review process can provide “opportunities for reflection on research aims and methods which may extend established research conventions” (p. 161). Therefore, while we may think about the ethics review process as
solely regarding safe and rigorous research procedures, the ethics review process can also function as a reflective process to enhance current and/or future research projects.

Main Ethical Issues of the Scholarship of Teaching and Learning

The Dual Role of Teacher-Researcher

As part of the research process, managing student learning must be a strong consideration. That is, when research might be conducted alongside student learning, students who do not wish to participate in the research must not also be excluded from classroom learning (Rowland & Myatt, 2013). However, conducting research after classroom learning may often yield low student participation (Cleary, Walter, & Jackson, 2014). Accordingly, conducting research alongside classroom learning might appear optimal, but this also raises the ethical consideration of allotting class time for research (Schnurr & Taylor, 2019). Although this might be ethically complicated, Schnurr and Taylor (2019) argue that “taking class time to systematically evaluate student learning is a worthwhile use of class time” (p. 4).

Of course, students must freely volunteer to participate in research. However, Pool and Reitsma (2017) suggest that high achieving students are more likely to participate, which could impact the final results. Furthermore, although researchers might believe they are not coercing their students to participate, students might nonetheless feel pressured to participate if the researcher is also their instructor (Martin, 2013). Therefore, balancing the roles of teacher and researcher is imperative when considering teachers’ power relation to students (Swenson & McCarthy, 2012). To navigate this consideration, the Taylor Institute for Teaching and Learning explains that, “When you are acting as both instructor and researcher, mitigate undue influence, coercion, or power imbalances by basing decisions first and foremost on your role as instructor… and by being sensitive to the inherent power differential between instructor and student” (Fedoruk, 2017, p. 4).

Chapter 7 of the TCPS2 explains that when researchers have dual roles while working as an educator, these researchers must be aware of any conflicts of interest that may emerge from this dual-role. The TCPS2 explains that, “Dual roles of researchers and their associated obligations… may create conflicts, undue influences, power imbalances or coercion that could affect relationships with others and affect decision-making procedures.” Accordingly, balancing
the dual-role is essential. However as an educator, the researcher must prioritize their role as an instructor first. The University of Ottawa recommends:

1) researchers must recognize and oblige to the fact that some students who do not consent to having their data collected for research may still participate in classroom activities associated with a research project.
2) researchers must demonstrate that participating in said research during class time still contributes to student learning and adheres to the course’s academic goals.
3) researchers must minimize any coercion for volunteers and the possibility of deception.
4) when research is conducted within a course curriculum with a researcher’s own students, researchers should consider: 1) outlining the research components in the course syllabus; 2) obtaining uncoerced consent from students (discussed further below); 3) when data is not anonymized, researchers should access data for research purposes after final course grades are finalized; and, 4) when data is anonymized (i.e., anonymous survey), researchers may access data prior to the finalization of grades.

**Recruiting Participants**

Recruiting students for research projects poses an ethical issue as the authority of the instructor-researcher renders students as a “captive population” (Fenton & Szala-Meneok, 2010). This is ethically complicated because students are “dependent on authority figures in their regular life and that this can infringe on their freedom in making decisions about their participation and lessens their autonomy” (Fenton & Szala-Meneok, 2010, p. 23). Accordingly, although potentially unnoticeable, students may feel pressured to participate in a study due to the fact their professor is leading a research project involving their students. If possible, Ferguson, Myrick, and Yonge (2006) suggest that educators find participants besides their own students who might meet the research participant criteria. To resolve the hidden coercion that may exist, McGinn (2018) suggests using a small student sample and inviting a third-party to recruit students, while other research recommends inviting students as co-researchers (Healey, Flint, & Harrington, 2014; MacLean & Poole, 2010). Lastly, Fenton and Szala-Meneok (2010) also highlight how students might feel like “guinea pigs” if they experience multiple research
invitations, and also that participating in research can lead to an overabundance of responsibility—first of which should be that of a learner.

Such an avenue for research is not prohibited, however it does mandate that researchers acknowledge that their authority has the influence to coerce students into participation. Article 3.1 of the TCPS2 explains that, “In considering the voluntariness of consent, REBs and researchers should be cognizant of situations where undue influence, coercion, or the offer or incentives may undermine the voluntariness of a participants’ consent to participate in research.”

To navigate some of these challenges, the University of Ottawa recommends:

1) in the event that researchers are not also the instructor for participants, researchers should not have access to students’ email addresses (i.e., professors should not divulge students’ personal email addresses). It is advised that researchers do not pass recruitment messages to instructors to then distribute to students, however announcement feeds can be distributed in Brightspace and in-class presentations. In such instances, other alternatives (i.e., in-class presentations, post-class flyer distribution, etc.) should be considered.

2) using a research assistant unaffiliated with participants, or the course(s), when the principal researcher is also the participants’ instructor.

3) minimizing participants’ knowledge of who other participants are because potential participants familiar with one another may coerce those individuals who do not wish to participate in a research project.

4) at a minimum, the following items must be included in all types of recruitment documents: (a) name of Principal Investigator, (b) contact information of research team member, including an institutional email address, (c) theme/topic of the research project, (d) overview of participation details, and (e) inclusion and selection criteria.

5) the researcher must use strategies to minimize coercing and pressuring participants to participate in a research project (informing participants that they may withdraw from a study at any time without consequence; that deciding whether or not to participate does not pose any consequences to students; recruiting participants by another research member unaffiliated with the target participants; not collecting personal information such as names and emails).
6) researchers working specifically with students from the Faculty of Medicine as participants must first obtain approval from the Faculty of Medicine to conduct the project—and this permission must be acquired before submitting the ethics application.

**Acquiring Informed Consent**

Ensuring informed consent from participants is essential for research as participants must be fully aware of all aspects of the proposed research. Therefore, it is important to notify participants about the “purpose, benefits, risks, and consequences of your research *before* asking for consent” (Fedoruk, 2017, p. 7). Once having been informed of the necessary details regarding the proposed research, participants are thereafter considered to be aware of the value of the research, as well as both their and the researcher’s responsibilities. In considering the aspects of acquiring informed consent, O’Leary (2014) explains that to acquire informed consent, researchers must ensure that participants are competent, autonomous, voluntarily involved, aware they can withdraw from a study at any point, and must not be deceived, coerced, or induced at any point.

Article 3.2 of the TCPS2 explains that, “Researchers shall provide to prospective participants, or authorized third parties, full disclosure of all information necessary for making an informed decision to participate in a research project.” The University of Ottawa recommends:

1) the consent form must be written clearly and accessible to participants’ language understanding.

2) The distinction between what is required class work and what is a research activity must be clear (e.g., the activity may be mandatory for the class, but the use for research purposes is voluntary).

3) in instances when conducting research in the classroom, all students may still participate, however the consent form should be written so as to explain to students that only those giving permission to use the data will *have their data used/collection*.
Privacy and Confidentiality

Maintaining and ensuring the privacy of individuals and the confidentiality of provided information/data is an essential component of an ethical research process. Sieber (2001) explains that confidentiality considers strategies to remove identifiable data pertaining to participants, as well as agreements to how participant data will be handled. As for SoTL, this is especially important as confidentiality also includes considerations for how identifiable participant data is safeguarded in distributing research. While Comer (2009) rightly highlights that study designs using only anonymous data is the most optimal strategy for ensuring confidentiality, this is not always possible depending on the research study. For example, any research conducted within the classroom that uses student participation or work as a data source must also show prudence in navigating and removing any identifying aspects. Regarding this consideration, McGinn (2018) recommends that researchers should consider the identifiable aspects of participants and “clarify potential limitations to confidentiality, so students can make informed choices about participation” (p. 11). Accordingly, considering participant confidentiality is very much connected to the informed consent process—before agreeing to participate, participants must have a clear understanding about what the research protocol’s approach to confidentiality entails.

Article 5 of the TCPS2 specifically explains that, “Researchers shall safeguard information entrusted to them and not misuse or wrongfully disclose it.” In addition, “Researchers shall describe measures for meeting confidentiality obligations and explain any reasonably foreseeable disclosure agreements.” Ensuring participants’ privacy and confidentiality guarantees that participants do not face consequences for their participation and/or provided data, and maintains participants’ trust between both the researcher(s) and affiliated institution(s). Fedoruk (2017) recommends that if information is to be distributed to other organizations or research partners, inform potential participants of this prior to their decision to participate. Indeed, as part of the ethics review process, researchers must specify the safeguard procedures used to ensure privacy and confidentiality. The University of Ottawa recommends that:

1) all research using surveys should use a Canadian server as the use of an American server makes the data susceptible to the U.S. Patriot Act, which grants American authorities access to data.
a. using the University of Ottawa’s survey platform, SurveyMonkey Enterprise, because the program is not hosted through an American server.

b. should you be looking for alternatives to SurveyMonkey, we invite you to consult the University of Ottawa’s INSPIRE Laboratory for information about using their survey tool, Qualtrics, which is also hosted on a Canadian server.

2) the researcher considers whether data collection poses any risks to participants’ confidentiality.

3) the researcher considers whether identifying a participant could have a negative impact on students.

4) the researcher must assure participant anonymity when presenting results and guarantee participant confidentiality by keeping participant data confidential (if identifiers are present) from the teacher-researcher until grades are finalized.

5) the researcher must use strategies to preserve confidentiality (using pseudonyms in transcriptions and in distributing publications; removing specific identifiers of participants).

6) any risks associated with participating in the research, as well as suggested strategies for participants to maintain their confidentiality (as mentioned above), should be clearly communicated in the consent document.

7) the researcher considers other limits to confidentiality, i.e., where students are aware of each other’s participation in the project, and where they could identify other students from the results.

**Secondary Use of Data**

Although typically a researcher must acquire consent from individuals to use their data before they participate in research, sometimes a research project may not involve the direct involvement of participants and instead use data generated from sources intended for other purposes besides the current research project. This can include student work, educational materials, program, course, and instructor evaluations, school records, and other identifiable data. However, it is important to note that the secondary use of data only applies to sources that
had been collected prior to conception of the current study. If researchers know in advance that they will want to collect data from students before students submit ‘data’, then this is not considered secondary use of data and the teacher-researcher would be required to seek ethical approval in advance. For example, if researchers are analyzing student work from a previous course as a baseline measure, this data would be considered secondary use, and depending on the nature of the data, may require ethical approval.

Chapter 5 of the TCPS2 explains that reasons for conducting secondary analyses of data can include,

- avoidance of duplication in primary collection and the associated reduction of burdens on participants; corroboration or criticism of the conclusions of the original project;
- comparison of change in a research sample over time; application of new tests of hypotheses that were not available at the time of original data collection; and confirmation that the data are authentic.

As part of educational and administrative evaluations, assessment procedures are used to gain insight into student perceptions, curricular revisions, and instructor accountability and efficacy. McGinn (2018) explains that, “On their own, these activities are considered quality assurance or normal educational practice and are not subject to REB unless there is an associated research project” (p. 8). When conducting secondary use of data, the researcher must make all necessary attempts to remove identifiable aspects if any exist and can then determine whether or not consent is required to use the data. For example, McGinn (2018) clarifies that, “consent expectation may differ for data that are anonymous… or anonymized” (p. 8). For example, course/instructor evaluations completed by students will already be anonymized and therefore do not require consent to use as a data source. However, consent must be acquired when data is identifiable to students (i.e., when using student work from a previous course as an artefact).

Nonetheless, when identifiable components exist within such data, the TCPS2 explains in Article 5.5A that REBs may approve a research project using secondary data without seeking consent if the researcher can satisfy all of the following criteria:

- identifiable information is essential to the research; the use of identifiable information without the participants’ consent is unlikely to adversely affect the welfare of individuals to whom the information relates; the researchers will take appropriate measures to protect the privacy of individuals and to safeguard the identifiable information; the researchers will comply with any known preferences previously expressed by individuals about any use of their information; it is impossible or impracticable … to seek consent from
individuals to whom the information relates; and the researchers have obtained any other necessary permission for secondary use of information for research purposes.

Each institution may have particular guidelines to navigate the secondary use of data for research purposes. It is important to note that secondary use of data applies to data that already exists. If, after finding interesting results from secondary use of data, a researcher plans to collect student data going forward, this is considered prospective data collection and a regular ethics application must be submitted.

**Data Conservation**

Although the TCPS2 does not specify the length of time to store data, the University of Ottawa does provide guidelines. The University of Ottawa’s *Procedure-29-2* explains that researchers must keep “complete and accurate records of research data, methodologies and findings, including graphs and images… in a manner that will allow verification or replication of the work by others.” Furthermore, the University of Ottawa specifies that all data must normally be securely stored (physically and/or technically) for a minimum of five years following the data collection process. These measures pertain to both original data and copies of the information. Other important considerations are to backup existing data files if using a computer or software to store data (Davidson, 1996). Creswell (2013) also recommends creating a master list of the types of information collected and using aliases for participants in the data. The University’s [IT website](#) also has useful guidelines and tools to ensure safe data management.

Indeed, research data management (RDM) is imperative to all research processes, including grant applications, as all major research organizations are now requesting that researchers demonstrate a plan for data to be part of the public domain indefinitely. In following this trajectory, it is recommended that researchers consult their post-secondary institution’s library or data service to inquire about storing data. As such data will be stored indefinitely, such major research organizations, such as the Social Sciences and Humanities Research Council (SSHRC), affirm that research data must be available for other researchers for the future. RDM ultimately enables researchers to develop further studies that build upon existing findings and data, while also enabling future research to explore alternative research avenues.
Conclusion

Research ethics are principal to academic research, and regardless of the discipline, methodology, or design, all studies centralize ethical protocols as a necessary step of academic scholarship. This guide has attempted to dispel the ethical ambiguities prevalent in SoTL research. However, this guide is simply a stepping-stone towards your research engagement with these issues. Additionally, REBs are also an excellent source of clarification for understanding the ethics process. To create a collaborative environment between SoTL researchers and the University of Ottawa REBs, we invite researchers to contact the Office of Research Ethics and Integrity at ethics@uottawa.ca as Protocol Officers are available to review ethics applications prior to submission, and clarify inquiries. This discussion can also lead to important insights to consider for the research design. Other valuable resources to consult are Ryerson’s Guiding Questions to Determine Whether Your Research Requires Ethics Approval, which provides excellent guiding questions to aid in identifying the type of research project you are considering or developing, and also guides you to determine whether or not your research project requires REB approval. Similarly, the ARECCI's Ethics Guideline Tool aids researchers in determining whether the considered research project meets a quality improvement/program evaluation design or a research design. Coupled with this ethics guide, the collaborative relationship with REBs, and consulting these guides, greatly strengthens ethics applications and enables robust future research projects.
References


